



November 18, 2013

Ms. Mary Millner  
U.S. EPA Region 10  
1200 6<sup>th</sup> Avenue, Suite 900, OCE-082  
Seattle Washington, 98101

and

Ms. Tiffany Allgood  
Coeur d'Alene Tribe  
P.O. Box 408, 850 A Street  
Plummer, Idaho 83851

**BY EMAIL ONLY**

**RE: SITE CHARACTERIZATION SUMMARY REPORT  
PLUMMER QUICK STOP, PLUMMER, IDAHO  
EPA UST FACILITY ID No. 2100026-COEUR D'ALENE INDIAN RESERVATION**

Dear Ms. Millner and Ms. Allgood:

Schwyn Environmental Services, LLC (Schwyn), on behalf of the Kamaljit Khakh Wood Trust has prepared this site characterization summary report for the drilling and soil sampling project conducted at the Plummer Quick Stop in Plummer, Idaho on October 22, 2013. The objective of the work was to determine the vertical extent of contamination, and whether or not groundwater has been impacted, in the vicinity of three borings where petroleum constituent concentrations were reported above the Idaho Department of Environmental Quality (IDEQ) Administrative Procedures Act (IDAPA) 58.01.24, Residential Use Screening Levels (RUSLs), and/or Chapter 173-340 WAC Washington State Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels at the maximum depth sampled during previous investigation.

**SITE DESCRIPTION**

Since January 1, 2009, the Kamaljit Khakh Wood Trust has operated a Quick Stop and retail petroleum fueling facility at the corner of 10<sup>th</sup> Street (Hwy. 95) and C Street (Hwy. 5) in Plummer, Idaho (Figure 1). The property is located in the northeast ¼ of the northwest ¼, Section 18, Township 46 North, Range 4 West, Boise Meridian, and is within the Coeur d'Alene Indian Reservation.

The Quick Stop building is centrally located on the property. The western two-thirds of the site is paved and the eastern portion of the site has a gravel surface. Two gasoline-dispensing islands are located west and northwest of the Quick Stop building. Three underground storage tanks (USTs) are located southwest of the building. Two of the USTs have a capacity of 6,000 gallons, and the third has a capacity of 10,000 gallons. The USTs were installed in 1985 and are used to store gasoline product. One of the 6,000 gallon USTs formerly was used to store diesel; however, the date of conversion to gasoline is

uncertain. One 2,000-gallon aboveground storage tank (AST) containing diesel is located on the south side of the Quick Stop building. The general configuration of the Quick Stop area is shown on Figure 2.

The topography of the site is relatively level with a slight slope to the south-southwest at approximately 2,740 feet above mean sea level. The nearest major water body is Coeur d'Alene Lake, approximately 5½ miles northeast of the site.

## PREVIOUS INVESTIGATIONS

Four subsurface drilling investigations have been conducted on the property. The historical boring locations are shown on Figure A1, and the historical analytical results are summarized on Table A1 in Attachment A. The investigations are summarized as follows:

- In June 1991, Howard Consultants, Inc. extended four borings to a maximum depth of 21 feet below ground level (bgl). Diesel range organics (DRO) were reported at concentrations ranging from 11 to 722 milligrams per kilogram (mg/kg) in soil samples collected from borings B-1 through B-4, located adjacent to the USTs.
- In November 2001, Brown and Caldwell conducted a Pre-Insurance Underwriting Investigation at the Quick Stop. Ten borings were advanced to a maximum depth of 20 feet bgl. Benzene, toluene, ethylbenzene and/or xylene (BTEX) were detected at concentrations that exceeded the RUSLs in four of the borings (B1, B8, B9, and B10). Additionally, methyl tert-butyl ether (MTBE) was detected in boring B10.
- During November 2008, Blue Mountain Environmental Consulting Services conducted a Limited Phase II Site Investigation. Five borings were extended to the maximum depth of 12 feet bgl. Benzene and ethylbenzene were detected at concentrations that exceed the RUSLs in soil samples collected from borings B-2 and B-5, located west of the northern product dispensing island and south of the USTs, respectively. Gasoline range organics (GRO) was reported at a concentration of 200 mg/kg in the soil sample collected south-adjacent to the USTs, and oil range organics (ORO) was reported at a concentration of 3,400 mg/kg in the soil sample collected west of the product-dispensing line. The reported GRO and ORO concentrations exceed MTCA Method A cleanup levels for unrestricted land uses.
- In March 2013, Farallon Consulting, LLC (Farallon) performed a subsurface investigation to comply with the letter prepared by the EPA regarding *Status of Leaking Underground Storage Tank Site, Plummer Quick Stop-Plummer, Idaho, U.S. Environmental Protection Agency (EPA) UST Facility ID No. 2100026-Coeur d'Alene Indian Reservation* dated January 22, 2013. The objective of the investigation was to determine the nature and extent of constituents of concern in soil in the vicinity of the USTs, and along the western portion of the Site. Seven borings were advanced to a maximum depth of 22 feet bgl. The investigation report dated August 21, 2013, indicated the presence of DRO in SB-7, and GRO in SB-1, SB-2, and SB-3 at concentrations exceeding the MTCA Method A soil cleanup levels. BTEX constituents were also reported at concentrations above the RUSLs in borings SB-1, SB-2, SB-3. Total lead concentrations did not exceed 73 mg/kg. The vertical depth limits of the petroleum constituents was not determined during the investigation, because the borings were terminated due to soil density and the inability of the direct-push drilling method to penetrate further into the subsurface soil.

Based on the previous investigation findings, the EPA requested Kamaljit Khakh Wood Trust to perform additional site evaluation to assess the nature and extent of the impacted media in the vicinity of Farallon borings SB-2, SB-3, and SB-7. Schwyn was contracted by the Kamaljit Khakh Wood Trust to perform the site investigation and further characterize the site consistent with EPA's request.

## **INVESTIGATION METHODS**

On September 4, 2013, Schwyn prepared a Work Plan for Continued Site Characterization (Work Plan), which described the proposed scope and methods for the subsurface investigation. The Work Plan was reviewed and approved by the EPA and Coeur d'Alene Tribe Environmental Compliance Program project managers. The objective of the subsurface investigation was to determine the vertical extent of petroleum contaminated soil in the vicinity of SB-2, SB-3, and SB-7, and if encountered, whether or not groundwater has been impacted. Groundwater was not encountered during the investigation, and therefore, monitoring wells were not constructed in the borings and groundwater samples were not collected.

### **FIELD PREPARATION**

To prepare for field activities, Schwyn reviewed the release reports, interviewed site personnel regarding site activities and utility corridors, arranged for field materials and equipment, and contacted One-Call Utility Locate to clear the boring locations to the property boundary. The Plummer Quick Stop site manager provided additional information regarding the utility corridors on site and approved the final boring locations. The EPA and Coeur d'Alene Tribe Environmental Compliance Program project managers were notified before the site work was performed.

### **DRILLING AND SAMPLE COLLECTION**

On October 22, 2013, three borings were drilled and decommissioned by Environmental West Exploration, a Idaho Licensed Driller of Spokane Washington. The borings were advanced under the observation of Mr. Schwyn, an Idaho Professional Geologist. During this investigation, the 6-inch diameter drill stem was placed directly over borings SB-2, SB-3, and SB-7, and the bentonite plug from the former 2.25-inch diameter Geoprobe program was drilled out. After drilling, each boring was backfilled with bentonite chips and a 3-inch thick asphalt patch was placed at surface. The new borings are designated SB-2D, SB-3D, and SB-7D. Groundwater was not encountered during the investigation, and therefore, monitoring wells were not constructed in the borings. The boring locations are shown on Figure 2.

Borings SB-2D, SB-3D and SB-7D were advanced to depths of 22.5, 25 and 27.5 feet bgl, respectively, using the TUBEX drilling method. The depth of each exploration was extended to the

maximum extent of apparent soil contamination based on photoionization detector (PID) measurements and at least 2.5 feet into basalt.

Soil samples were collected for geologic interpretation using drill chips or a split-spoon sampler. The intent was to collect soil samples with a split-spoon sampler at 5 foot intervals beginning at the nearest five foot depth below the last sample collected during the Farallon investigation: SB-2D at 20 feet bgl, SB-3D at 25 feet bgl, and SB-7D at 27 feet bgl. However, basalt was generally encountered before the split spoon could be driven into the soil. Therefore, most samples were collected from drill cuttings. Exploration logs were completed for each boring and include soil lithology described consistent with the Unified Soil Classification System (USCS), observed PID values, soil moisture content, and drilling action. The exploration logs are provided in Attachment B.

#### **LABORATORY ANALYSIS**

Two soil samples were collected from each boring for laboratory analysis. Soil samples collected for laboratory analysis of volatile organic constituents (VOCs) were placed in 40-ml glass vials with septum screw cap in accordance with EPA Method 5035A Closed System Analysis. Samples collected for petroleum hydrocarbon and polycyclic aromatic hydrocarbons (PAHs) analysis were placed in 8-ounce glass jars with Teflon lined lids. Each sample was transferred immediately into the laboratory-supplied sample container, placed in a cooler with ice, and transferred to TestAmerica, of Spokane, Washington, under strict chain-of-custody procedures.

At agency request the soil samples were analyzed for gasoline and diesel petroleum release constituents described in both IDAPA 58.01.24 Table 1 *Chemicals of Interest for Various Petroleum Products*, and MTCA Table 830-1 *Required Testing for Petroleum Releases*. The soil samples collected from SB-2D and SB-3D were analyzed for GRO by Ecology Method NWTPH-G, and BTEX with naphthalene and MTBE (BTEXNM) by EPA Method 8260C. The SB-7D soil samples were analyzed for DRO and ORO by Ecology Method NWTPH-Dx, and PAHs by EPA Method 8270. The SB-7D soil sample from 25 feet bgl was also analyzed for BTEXNM using EPA Method 8260C.

#### **DECONTAMINATION AND RESIDUALS CHARACTERIZATION**

Prior to, and after drilling each boring, all equipment used in the boring was cleaned with a high pressure steam cleaner. All drill cuttings and decontamination fluids were placed in 55-gallon steel drums and staged on-site for characterization and disposal. Additional soil and water samples were collected and analyzed for disposal purposes. One soil sample was analyzed for polychlorinated biphenyls (PCBs) to complement the other soil analysis. One water sample was collected from the decontamination fluids and analyzed for DRO, ORO, GRO, and BTEXNM.

## **INVESTIGATION FINDINGS**

### **GEOLOGY AND HYDROGEOLOGY**

Geologic conditions observed in SB-2D, SB-3D and SB-7D consisted of unconsolidated soil overlying basalt. The unconsolidated soil was composed of poorly graded sand with gravel, well graded sand, silty sand, and silt. Basalt was encountered at depths of 20, 21, and 25.5 feet bgl in SB-2D, SB-3D and SB-7D, respectively. The basalt was firm, with few, if any, apparent fractures. The upper basalt surface appeared to dip to the southeast.

Observed soil moisture in the soil samples ranged from dry to moist. Wet soil or groundwater was not observed in any of the borings.

### **ANALYTICAL RESULTS**

The laboratory analytical results are summarized on Table 1. The laboratory analytical report is provided in Attachment C.

Review of the analytical results indicate that all GRO and BTEXNM concentrations in the SB-2D and SB-3D samples were less than the respective Idaho RUSLs and Washington State MTCA Method A cleanup levels for unrestricted land uses. Review of the analytical results from the two samples collected from SB-7D indicate that all PAH, DRO, and ORO concentrations were less than the respective Idaho RUSLs and MTCA Method A cleanup levels for unrestricted land uses. Benzene and naphthalene concentrations in sample SB7D-25 were the only BTEXNM constituents that exceeded a screening level. Sample SB7D-25 was collected from the soil above the basalt contact. The reported concentration of benzene (0.0372 mg/kg) in sample SB7D-25 exceeded the RUSL of 0.0178 mg/kg and the MTCA Method A cleanup level of 0.03 mg/kg. The reported concentration of naphthalene (0.243/1.09 mg/kg) in sample SB7D-25 exceeded the RUSL of 0.078 mg/kg, but did not exceed the MTCA Method A cleanup level of 5 mg/kg.

### **CONCLUSION**

The objective of the subsurface investigation was to determine the vertical extent of petroleum contaminated soil in the vicinity of borings SB-2, SB-3, and SB-7, and if encountered, whether or not groundwater has been impacted. The findings of this subsurface investigation indicate that the vertical extent of petroleum impacted soil is defined in borings SB-2D, SB-3D, and SB-7D by the basalt contact. Soils above the basalt contact are affected with petroleum constituent concentrations either below or above screening levels. Laboratory results indicate that all petroleum constituent concentrations in samples collected below the basalt contact were less than Idaho RUSLs and MTCA Method A cleanup

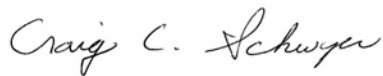
levels for unrestricted land uses. Groundwater was not encountered during this investigation and is not considered an affected media or a potential pathway to human exposure.

No further remedial investigation is proposed, based on historical information, the findings of this investigation, and the conclusions presented herein.

If you have any questions or requests for additional information, please contact me at (509) 448-3187.

Sincerely,

SCHWYN ENVIRONMENTAL SERVICES, LLC

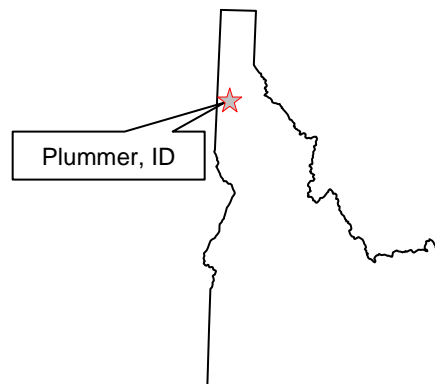
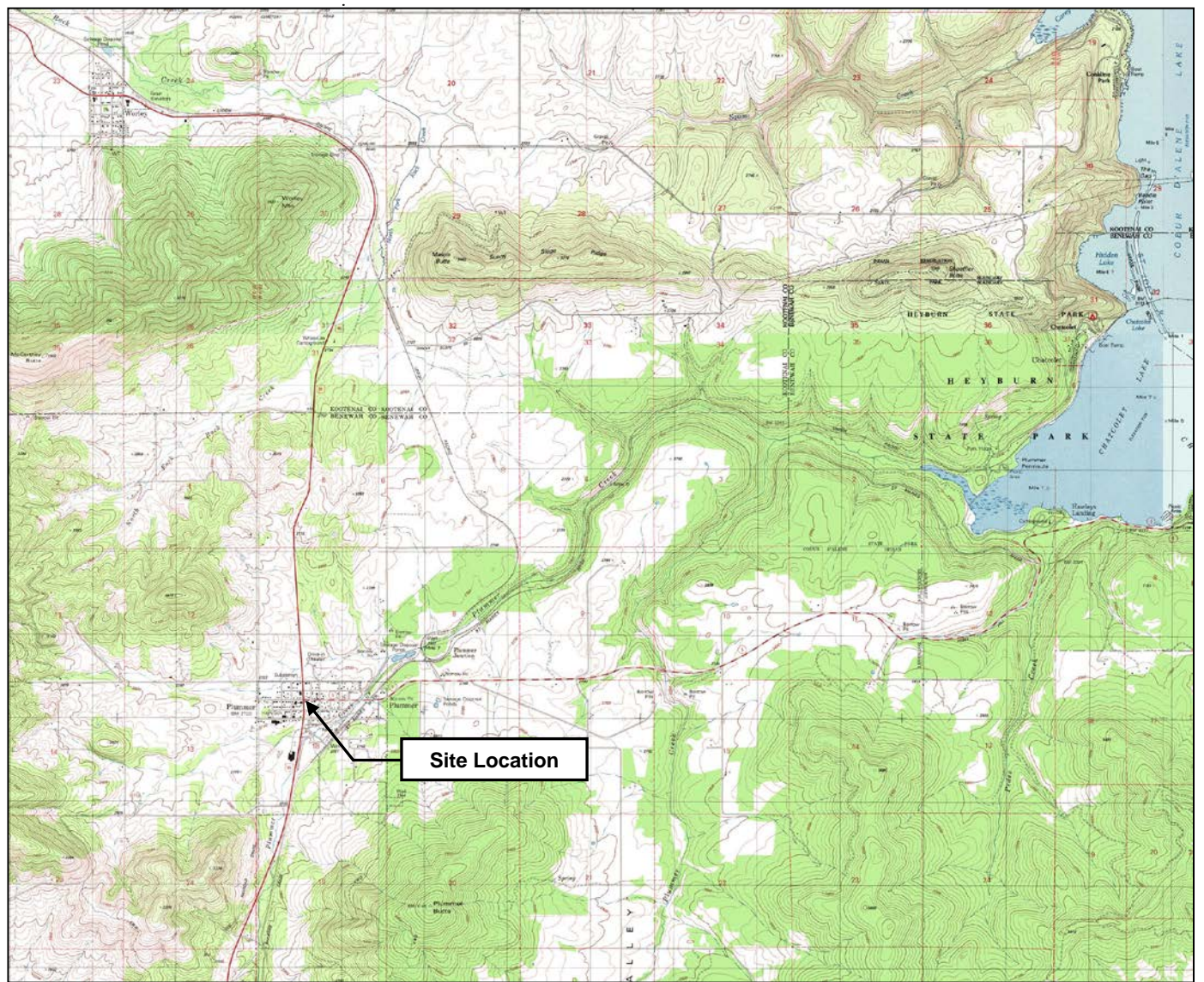


Craig C. Schwyn, PG.  
Principal Hydrogeologist

Cc: Sukhdev Khakh, Kamaljit Khakh Wood Trust  
Paul Scott, Coldwell Banker Commercial Schneidmiller Realty

Attachments: Figures 1 and 2  
Table 1  
Attachment A – Historical Data  
Attachment B – Laboratory Analytical Report





Plummer Quick Stop  
Plummer, Idaho

**SITE LOCATION**

Figure  
**1**





#### LEGEND

- **SB2D** Soil Boring (Schwyn 2013)
- Product Line (approximate)
- Fiber Optic Line (approximate)



Plummer Quick Stop  
Plummer, Idaho

## SITE PLAN AND BORING LOCATIONS

Figure  
**2**



**TABLE 1**  
**SOIL ANALYTICAL DATA SUMMARY- PETROLEUM HYDROCARBON CONSTITUENTS**  
**Plummer Quick Stop**  
**Plummer, Idaho**

Location	Sample Identification	Sample Date	Sample Depth (Feet)	Analytical Results (mg/kg)								
				DRO(a)	ORO(a)	GRO(b)	Benzene(c)	Toluene(c)	Ethyl-benzene(c)	Total Xylenes(c)	MTBE(c)	Naphthalene(c)
SB-2D	SB2D-20	10/22/2013	20.0	--	--	<6.44	<0.00644	<0.129	<0.129	<1.91	<0.00773	<0.258
	SB2D-22.5	10/22/2013	22.5	--	--	<6.20	<0.00620	<0.124	<0.124	<1.86	<0.00744	<0.248
SB-3D	SB3D-21	10/22/2013	21.0	--	--	23.1	<0.00708	<0.142	<0.142	<2.12	<0.00849	<0.283
	SB3D-25	10/22/2013	25.0	--	--	<6.36	<0.00636	<0.127	<0.127	<1.91	<0.00763	<0.283
SB-7D	SB7D-25	10/22/2013	25.0	90.6	<34.8	--	0.0372	<0.173	<0.173	<1.04	<0.0104	1.09
	SB7D-27.5	10/22/2013	27.5	25.8	<23.0	--	--	--	--	--	--	--
RUSL(d)							0.0178	4.89	0.071	1.68	0.067	0.078
MTCA Cleanup Level (e)				2000	2000	100/30(f)	0.03	7	6	9	0.1	5

**Notes:**

All samples collected by Schwyn Environmental Services and analyzed by TestAmerica.

< = Not detected at or above method reporting level shown.

-- = Not analyzed.

MTBE = Methyl tert-butyl ether

(a) Diesel range organic hydrocarbons (DRO) and oil range organic hydrocarbons (ORO) analyzed by Ecology method NWTPH-DX.

(b) Gasoline range organic hydrocarbons (GRO) analyzed by NWTPH-Gx.

(c) Analyzed by EPA 8260C.

(d) Residential Use Screening Levels from IDAPA 58.01.24; May 8, 2009.

(e) Model Toxics Control Act (MTCA) chapter 173-340 WAC Method A soil cleanup levels for unrestricted land uses.

(f) Cleanup level for gasoline range mixtures without benzene is 100 mg/kg, and 30 mg/kg with the presence of benzene.

**TABLE 2**  
**SOIL ANALYTICAL DATA SUMMARY - POLYAROMATIC HYDROCARBONS**  
**Plummer Quick Stop**  
**Plummer, Idaho**

Location	Sample Identification	Sample Date	Sample Depth (Feet)	Polycyclic Aromatic Hydrocarbons (mg/kg)(a)															
				2-Methylnaphthalene	1-Methylnaphthalene	Acenaphthene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total TEQ
SB-7D	SB7D-25	10/22/2013	25.0	1.99	1.10	0.751	0.238	<.00135	<.00135	<.00135	<.00135	<.00135	<.00811	0.0207	<.00135	0.243	1.06	0.0613	0.000
	SB7D-27.5	10/22/2013	27.5	0.0777	0.0496	0.0477	0.0141	<.00918	<.00918	<.00918	<.00918	<.00918	<.00511	<.00918	<.00918	0.643	<.00918	<.00918	0.000
RUSL(c)				NS	NS	52.3	1040	0.422	0.0422	0.422	4.22	33.4	NS	364	NS	0.078	NS	359	NS
MTCA Cleanup Level (d)				NS	NS	4800	24000	1.4	0.14	1.4	14	140	0.14	NS	1.4	5	NS	2400	0.137
<b>Notes:</b> All samples collected by Schwyn Environmental Services and analyzed by TestAmerica. Only detected parameters and carcinogenic polycyclic aromatic hydrocarbons summarized on table. See laboratory report for complete analysis. ND = Not detected at or above method reporting level. NS = Not specified. (a) Polycyclic aromatic hydrocarbons analyzed by Ecology method 8270C. (b) Toxicity equivalent concentration (TEC) calculated using toxicity equivalency factor methodology adopted by Washington State Department of Ecology on October 12, 2007. (c) Residential Use Screening Levels from IDAPA 58.01.24; May 8, 2009. (d) Model Toxics Control Act (MTCA) chapter 173-340 WAC Method A or B soil cleanup levels for unrestricted land uses.																			

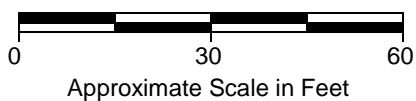
# **HISTORICAL SAMPLING POINTS AND ANALYTICAL DATA SUMMARY**





#### LEGEND

- **SB2D** Soil Boring (Schwyn 2013)
- **SB1** Soil Boring (Farallon 2013)
- ◆ **B2** Soil Boring (BMC 2008)
- ▲ **B1** Soil Boring (B&C 2001)
- ✚ **B-1** Soil Boring (HCI 1991)
- Product Line (approximate)
- Fiber Optic Line (approximate)



Plummer Quick Stop  
Plummer, Idaho

**HISTORICAL SAMPLING  
POINTS**

Figure  
**A1**

**TABLE A1**  
**HISTORICAL ANALYTICAL DATA SUMMARY**  
**Plummer Quick Stop**  
**Plummer, Idaho**

Location	Sample Identification	Sampled By	Sample Date	Sample Depth (Feet)	Analytical Results (mg/kg)								
					DRO(a)	ORO(a)	GRO(b)	Benzene(c)	Toluene(c)	Ethyl-benzene(c)	Xylenes(c)	MTBE(c)	Lead(d)
SB-1	SB-1-1.8	Farallon	4/4/2013	1.8	130 M,N	430	<b>5,900</b>	<0.28 L	<1.4	<b>16</b>	54.3	--	29
	SB-1-9.0	Farallon	4/4/2013	9.0	<30	<60	23	<b>0.13</b>	<0.0037	0.069	0.0388	--	10
	SB-1-12.0	Farallon	4/4/2013	12.0	<33	<66	20	<b>0.061</b>	<0.0047	0.19	0.2019	--	11
	SB-1-16.0	Farallon	4/4/2013	16.0	<35	<69	<7.8	<0.0010	<0.0052	<0.0010	<0.0031	--	<6.9
SB-2	SB-2-8.0	Farallon	4/4/2013	8.0	36 M	<60	<b>450</b>	<b>0.42</b>	0.5	<b>9.5</b>	<b>52</b>	--	8.3
	SB-2-12.0	Farallon	4/4/2013	12.0	<34	<67	44	<b>0.56</b>	<0.32	<b>1.2</b>	6.2	--	11
	SB-2-13.0	Farallon	4/4/2013	13.0	110M	<69	<b>950</b>	<b>3.2</b>	<b>11</b>	<b>18</b>	<b>97</b>	--	<6.9
	SB-2-15.0	Farallon	4/4/2013	15.0	79 M	<67	<b>630</b>	<b>4.2</b>	<b>12</b>	<b>10</b>	<b>57</b>	--	<6.7
SB-3	SB-3-8.7	Farallon	4/4/2013	8.7	<32	<64	<b>250</b>	0.004	<0.0043	0.03	0.003	--	8.1
	SB-3-15.0	Farallon	4/4/2013	15.0	<36	<72	16 T	<b>0.11</b>	<0.0055	<0.0011	0.0012	--	7.9
	SB-3-18.0	Farallon	4/4/2013	18.0	<34	<69	<7.0	<b>0.2</b>	<0.0053	0.0012	0.0185	--	<6.9
	SB-3-20.0	Farallon	4/4/2013	20.0	<35	<70	<8.6	<b>0.19</b>	<0.0057	<0.0011	0.0036	--	<7.0
SB-4	SB-4-3.7	Farallon	4/4/2013	3.7	<32	<65	27	0.0053	<0.0048	0.0036	0.073	--	22
	SB-4-12.0	Farallon	4/4/2013	12.0	<31	<62	<5.7	0.035	<0.0043	0.1	0.097	--	14
	SB-4-18.0	Farallon	4/4/2013	18.0	<34	<68	<7.0	<0.0010	<0.0050	<0.0010	<0.0030	--	<6.8
	SB-4-20.3	Farallon	4/4/2013	20.3	<33	<66	<7.1	<0.0011	<0.0053	<0.0011	<0.0032	--	<6.6
SB-5	SB-5-2.7	Farallon	4/4/2013	2.7	<33	<65	<6.4	0.0019	<0.0087	<0.0017	<0.0052	--	<b>73</b>
	SB-5-8.0	Farallon	4/4/2013	8.0	<30	<61	<5.4	<0.00087	<0.0044	<0.00087	<0.00257	--	8.7
	SB-5-18.5	Farallon	4/4/2013	18.5	<35	<71	<7.7	0.0015	<0.0054	<0.0011	<0.0033	--	<7.1
SB-6	SB-6-4.0	Farallon	4/4/2013	4.0	<33	<65	<b>77</b>	<b>0.088</b>	<0.33	0.082	1.61	--	22
	SB-6-8.0	Farallon	4/4/2013	8.0	<30	<60	<4.5	0.0016	<0.0038	<0.00075	<0.00225	--	8.3
	SB-6-15.0	Farallon	4/4/2013	15.0	<35	<69	<6.6	<0.0011	<0.0054	<0.0011	<0.0033	--	<6.9
	SB-6-18.5	Farallon	4/4/2013	18.5	<35	<69	<7.5	<0.0012	<0.0060	<0.0012	<0.0036	--	<6.9
SB-7	SB-7-3.7	Farallon	4/4/2013	3.7	<32	<64	<6.8	0.008	<0.0053	0.004	0.27	--	13
	SB-7-8.0	Farallon	4/4/2013	8.0	<30	<60	<5.3	0.0022	<0.0042	<0.00083	<0.00253	--	7.5
	SB-7-14.5	Farallon	4/4/2013	14.5	79	<73	<7.9	0.016	<0.0066	<0.0013	<0.004	--	<7.3
	SB-7-22.0	Farallon	4/4/2013	22.0	<b>3,000</b>	<340 UI	<10.0	<0.10 L	<0.51	<0.10	<0.30	--	6.6



**TABLE A1**  
**HISTORICAL ANALYTICAL DATA SUMMARY**  
**Plummer Quick Stop**  
**Plummer, Idaho**

Location	Sample Identification	Sampled By	Sample Date	Sample Depth (Feet)	Analytical Results (mg/kg)								
					DRO(a)	ORO(a)	GRO(b)	Benzene(c)	Toluene(c)	Ethyl-benzene(c)	Xylenes(c)	MTBE(c)	Lead(d)
B1	B1-S-12	BMEC	11/4/2008	12.0	--	--	<13	<0.026	<0.13	<0.13	<0.13	--	--
B2	B2-S-12	BMEC	11/4/2008	12.0	--	--	11	<b>0.62</b>	0.36	<b>0.55</b>	2	--	--
B3	B3-S-4	BMEC	11/4/2008	4.0	<170	3,400	<9.4	--	--	--	--	--	--
	B3-S-12	BMEC	11/4/2008	12.0	<30	<60	<6.1	--	--	--	--	--	--
B4	B4-S-12	BMEC	11/4/2008	12.0	--	--	<13	<0.027	<0.13	<0.13	<0.13	--	--
B5	B5-S-12	BMEC	11/4/2008	12.0	--	--	<b>200</b>	<b>3.4</b>	<0.13	<b>3.1</b>	5.3	--	--
B6	B6-S-12	BMEC	11/4/2008	12.0	--	--	<11	<0.021	<0.11	<0.11	<0.11	--	--
B-1	B-1	B&C	11/8/2001	1.0-3.0	143	--	--	<0.025	<0.2	<0.2	<0.2	--	--
	B-1	B&C	11/8/2001	13.0-15.0	--	--	--	--	--	--	--	--	--
	B-1	B&C	11/8/2001	18.0-20.0	--	--	--	--	--	--	--	--	--
B-2	B-2	B&C	11/8/2001	14.0-16.0	--	--	--	<b>0.0291</b>	<0.2	<0.2	0.407	<0.1	--
B-3	B-3	B&C	11/8/2001	14.0-16.0	--	--	--	<0.025	<0.2	<0.2	<0.2	<0.1	--
B-4	B-4	B&C	11/8/2001	14.0-16.0	--	--	--	<0.025	<0.2	<0.2	<0.2	<0.1	--
B-5	B-5	B&C	11/8/2001	14.0-16.0	--	--	--	<0.025	<0.2	<0.2	<0.2	<0.1	--
B-6	B-6	B&C	11/8/2001	2.0-4.0	--	--	--	<0.025	<0.2	<0.2	<0.2	<0.1	--
B-8	B-8	B&C	11/8/2001	2.0-4.0	--	--	--	<b>0.0712</b>	<0.2	<b>0.48</b>	0.948	<0.1	--
B-9	B-9	B&C	11/8/2001	2.0-4.0	--	--	--	<b>0.0705</b>	<0.2	<b>0.28</b>	0.213	<0.1	--
B-10	B-10	B&C	11/8/2001	2.0-4.0	--	--	--	<b>0.122</b>	<b>13.2</b>	<b>14.2</b>	67.1	<b>0.312</b>	--
B-1	B-1	HCI	6/18/1991	9.0-10.0	722	--	--	--	--	--	--	--	--
	B-1	HCI	6/18/1991	14.0-15.0	343	--	--	--	--	--	--	--	--
	B-1	HCI	6/18/1991	20.0-21.0	470	--	--	--	--	--	--	--	--
B-2	B-2	HCI	6/18/1991	14.0-15.0	61	--	--	--	--	--	--	--	--
	B-2	HCI	6/18/1991	18.0-19.0	517	--	--	--	--	--	--	--	--
B-3	B-3	HCI	6/18/1991	14.0-15.0	11	--	--	--	--	--	--	--	--
B-4	B-4	HCI	6/18/1991	14.0-15.0	12	--	--	--	--	--	--	--	--
RUSL(e)								0.0178	4.89	0.071	1.68	0.067	
MTCA Cleanup Level (f)					2000	2000	100/30(g)	0.03	7	6	9	0.1	250

**TABLE A1**  
**HISTORICAL ANALYTICAL DATA SUMMARY**  
**Plummer Quick Stop**  
**Plummer, Idaho**

Location	Sample Identification	Sampled By	Sample Date	Sample Depth (Feet)	Analytical Results (mg/kg)								
					DRO(a)	ORO(a)	GRO(b)	Benzene(c)	Toluene(c)	Ethyl-benzene(c)	Xylenes(c)	MTBE(c)	Lead(d)
<p><u>Notes:</u></p> <p>&lt; = Not detected at or above method reporting level shown.</p> <p>-- = Not analyzed.</p> <p>(a) Diesel range organic hydrocarbons (DRO) and oil range organic hydrocarbons (ORO) analyzed by Ecology method NWTPH-DX or EPA Method 8015/418.1 Mod.</p> <p>(b) Gasoline range organic hydrocarbons (GRO) analyzed by NWTPH-Gx.</p> <p>(c) Analyzed by EPA 8260C/ 8260B/ 8021B</p> <p>(d) Analyzed by EPA Method 6010C.</p> <p>(e) Residential Use Screening Levels from IDAPA 58.01.24; May 8, 2009.</p> <p>(f) Model Toxics Control Act (MTCA) chapter 173-340 WAC Method A soil cleanup levels for unrestricted land uses.</p> <p>(g) Cleanup level for gasoline range mixtures without benzene is 100 mg/kg, and 30 mg/kg with the presence of benzene.</p> <p>L= requested PQL non-achievable due to sample dilution</p> <p>M = gasoline range hydrocarbons impacting diesel range result.</p> <p>N = lube oil range hydrocarbons impacting diesel range result.</p> <p>T= sample chromatogram is not similar to a typical gasoline chromatogram</p> <p>U = PQL is elevated due to interferences present in the sample.</p> <p>MTBE = Methyl tert-butyl ether</p> <p>Farallon = Farallon Consulting, LLC</p> <p>BMEC = Blue Mountain Environmental Consulting</p> <p>B&amp;C = Brown and Caldwell</p> <p>HCI = Howard Consulting , Inc.</p>													

ATTACHMENT B

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# EXPLORATION BORING LOGS



# Log of Exploration



**Boring ID: SB-2D**

**Drill Date:** October 22, 2013  
**Logged By:** Craig Schwyn  
**Drilled By:** Environmental West Exp.  
**Drill Type:** TUBEX  
**Sample Method:** Cuttings or Split Spoon  
**Boring Diameter:** 6"  
**Boring Depth (ft BGL):** 22.5 ft.  
**Groundwater (ft BGL):** None

**Project:** Plummer Quick Stop  
**Client:** Kamaljit Khah Wood Trust  
**Site Location:** Plummer, Idaho  
**Ground Elevation:** 2743 ft. (approximate)  
**Coordinate System:** NA  
**Latitude/Northing:** NA  
**Longitude/Easting:** NA

**Remarks:** Boring SB-2D over-drilled and extended Farallon boring SB-2 from 15 to 22.5 ft. bgl.  
 Lithologic descriptions compiled from Farallon boring log and field observations.

SAMPLE TYPE / ID	DRIVE / RECOVERY	BLOW COUNT	DEPTH FT BGS	USCS SYMBOL	Sample Description	Well Construction Detail
Visual			0		Asphalt: Asphalt	
			1		Backfill: Basecourse	
			2			
			3		SP: SAND with gravel, poorly graded, fine to coarse sand, fine to coarse gravel, brown, moist, petroleum odor.	
			4			
Cuttings			5		ML: SILT with trace sand and gravel, brown to grey, stiff, low plasticity, moist, slight petroleum odor. @ 5 ft.: PID=15	
			6			
			7			
			8			
			9			
Cuttings			10		@ 10 ft.: PID=30-45 ppm	
			11			
			12			
			13		SP: SAND with trace to little silt, fine to medium sand, moist, light brown to grey to rust, petroleum odor.	
			14			
Cuttings			15		@ 15 ft.: PID = 30-45 ppm.	
			16			
			17			
			18			
			19			
SS Cuttings			20		Basalt: grey, very hard. @ 20 ft.: PID=0 ppm	
			21			
Cuttings			22		@ 22 ft.: PID=0 ppm	

Bentonite Chips

**Notes:**

ft BGL = feet below ground level

USCS = Unified Soil Classification System

☞ = denotes groundwater table

# Log of Exploration



**Boring ID: SB-3D**

**Drill Date:** October 22, 2013  
**Logged By:** Craig Schwyn  
**Drilled By:** Environmental West Exp.  
**Drill Type:** TUBEX  
**Sample Method:** Cuttings or Split Spoon  
**Boring Diameter:** 6"  
**Boring Depth (ft BGL):** 25.5 ft.  
**Groundwater (ft BGL):** None

**Project:** Plummer Quick Stop  
**Client:** Kamaljit Khah Wood Trust  
**Site Location:** Plummer, Idaho  
**Ground Elevation:** 2743 ft. (approximate)  
**Coordinate System:** NA  
**Latitude/Northing:** NA  
**Longitude/Easting:** NA

**Remarks:** Boring SB-3D over-drilled and extended Farallon boring SB-3 from 20 to 25.5 ft. bgl.  
 Lithologic descriptions compiled from Farallon boring log and field observations.

SAMPLE TYPE / ID	DRIVE / RECOVERY	BLOW COUNT	DEPTH FT BGS	USCS SYMBOL	Sample Description	Well Construction Detail
Visual			0		Asphalt: Asphalt	
			1		Backfill: Basecourse	
			2			
			3		SP: SAND with gravel, poorly graded, fine to coarse sand, fine to coarse gravel, grey, moist, no odor.	
			4			
Cuttings			5		ML: SILT, grey transitions to brown at 5.3 ft, moist, none to slight odor. @ 5 ft.: PID=0	
			6			
			7			
			8			
			9			
Cuttings			10			
			11			
			12		SM: Silty SAND, fine sand, rust to grey, moist to dry, slight petroleum-like odor.	
			13			
			14			
Cuttings			15		SP: SAND, fine sand, trace silt, brown, moist, slight petroleum-like odor. @ 15 ft.: PID=1.7 ppm	
			16			
			17			
			18			
			19			
Cuttings			20		@ 20 ft.: PID=1-6 ppm	
Cuttings			21		Basalt: grey, very hard, petroleum odor noted at lithologic contact. @ 21 ft.: PID=21-22 ppm	
			22			
			23			
			24			
Cuttings			25		@ 25 ft.: No odor, PID=0.3-2.4 ppm	

Bentonite Chips

**Notes:**

ft BGL = feet below ground level

USCS = Unified Soil Classification System

☞ = denotes groundwater table



# Log of Exploration



**Boring ID: SB-7D**

**Drill Date:** October 22, 2013  
**Logged By:** Craig Schwyn  
**Drilled By:** Environmental West Exp.  
**Drill Type:** TUBEX  
**Sample Method:** Cuttings or Split Spoon  
**Boring Diameter:** 6"  
**Boring Depth (ft BGL):** 27.5 ft.  
**Groundwater (ft BGL):** None

**Project:** Plummer Quick Stop  
**Client:** Kamaljit Khah Wood Trust  
**Site Location:** Plummer, Idaho  
**Ground Elevation:** 2743 ft. (approximate)  
**Coordinate System:** NA  
**Latitude/Northing:** NA  
**Longitude/Easting:** NA

**Remarks:** Boring SB-7D over-drilled and extended Farallon boring SB-7 from 22 to 27.5 ft. bgl.  
 Lithologic descriptions compiled from Farallon boring log and field observations.

SAMPLE TYPE / ID	DRIVE / RECOVERY	BLOW COUNT	DEPTH FT BGS	USCS SYMBOL	Sample Description	Well Construction Detail
Visual			0		Asphalt: Asphalt	
			1		Backfill: Basecourse	
			2			
			3		GP: SAND with gravel, poorly graded, fine to coarse sand, fine to coarse gravel, grey, moist, no odor.	
			4		SM: Silty SAND, fine to medium sand, grey, moist, no odor.	
Cuttings			5			
			6		ML: SILT, grey transitions to brown at 6.2 ft, moist, no odor to slight odor from 11.5 to 12.0 ft.	
			7			
			8			
			9			
Cuttings			10			
			11			
			12			
			13		SM: Silty SAND, poorly graded, fine to medium sand, rust to grey transitions to grey at 19.4, moist to dry, petroleum-like odor.	
			14			
Cuttings			15		@ 15 PID=0 ppm	
			16			
			17			
			18			
			19			
Cuttings			20		@ 20 PID=11 ppm	
			21			
			22			
			23			
			24		@ 24 ft: Driller notes hard drilling/lithology change.	
SS		63/3"	25		CL: Gravelly SILT, mottled brown and grey-green, fine to coarse basaltic gravel, low plasticity fines, moist, petroleum odor. PID = 14-22 ppm.	
Cuttings			26			
			27		Basalt: grey, very hard.	

Bentonite Chips

**Notes:**

ft BGL = feet below ground level

USCS = Unified Soil Classification System

☞ = denotes groundwater table

ATTACHMENT C

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# LABORATORY ANALYTICAL REPORT



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Spokane  
11922 East 1st. Avenue  
Spokane, WA 99206  
Tel: (509)924-9200

TestAmerica Job ID: SWJ0162

Client Project/Site: [none]

Client Project Description: Plummer Quick Stop

For:

Schwyn Environmental Services, LLC  
4621 S. Custer Ct.  
Spokane, WA 99223

Attn: Craig Schwyn



Authorized for release by:  
11/5/2013 4:45:06 PM

Randee Decker, Project Manager  
(509)924-9200  
[Randee.Decker@testamericainc.com](mailto:Randee.Decker@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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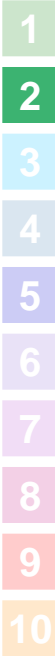
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# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Sample Summary . . . . .	3
Definitions . . . . .	4
Client Sample Results . . . . .	5
QC Sample Results . . . . .	10
Chronicle . . . . .	19
Certification Summary . . . . .	21
Method Summary . . . . .	22
Chain of Custody . . . . .	23

## Sample Summary

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SWJ0162-01	SB7D-25'	Soil	10/22/13 10:00	10/23/13 10:50
SWJ0162-02	SB7D-27.5	Other (S)	10/22/13 10:30	10/23/13 10:50
SWJ0162-03	SB3D-21	Other (S)	10/22/13 13:20	10/23/13 10:50
SWJ0162-04	SB3D-25	Other (S)	10/22/13 13:40	10/23/13 10:50
SWJ0162-05	SB2D-20	Other (S)	10/22/13 16:00	10/23/13 10:50
SWJ0162-06	SB2D-22.5	Other (S)	10/22/13 16:30	10/23/13 10:50
SWJ0162-07	SCW	Water	10/22/13 17:00	10/23/13 10:50



## Definitions/Glossary

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

### Qualifiers

#### GCMS Volatiles

Qualifier	Qualifier Description
P	The sample, as received, was not preserved in accordance to the referenced analytical method.

#### Semivolatiles

Qualifier	Qualifier Description
R2	The RPD exceeded the acceptance limit.

#### Fuels

Qualifier	Qualifier Description
R2	The RPD exceeded the acceptance limit.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

**Client Sample ID: SB7D-25'**

**Lab Sample ID: SWJ0162-01**

**Date Collected: 10/22/13 10:00**

**Matrix: Soil**

**Date Received: 10/23/13 10:50**

**Percent Solids: 73.5**

## Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0104		mg/kg dry	☼	10/24/13 08:17	10/24/13 18:57	1.00
<b>Benzene</b>	<b>0.0372</b>		0.00866		mg/kg dry	☼	10/24/13 08:17	10/24/13 18:57	1.00
Toluene	ND		0.173		mg/kg dry	☼	10/24/13 08:17	10/24/13 18:57	1.00
Ethylbenzene	ND		0.173		mg/kg dry	☼	10/24/13 08:17	10/24/13 18:57	1.00
m,p-Xylene	ND		0.693		mg/kg dry	☼	10/24/13 08:17	10/24/13 18:57	1.00
o-Xylene	ND		0.346		mg/kg dry	☼	10/24/13 08:17	10/24/13 18:57	1.00
<b>Naphthalene</b>	<b>1.09</b>		0.346		mg/kg dry	☼	10/24/13 08:17	10/24/13 18:57	1.00
Xylenes (total)	ND		1.04		mg/kg dry	☼	10/24/13 08:17	10/24/13 18:57	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.9		42.4 - 163				10/24/13 08:17	10/24/13 18:57	1.00
1,2-dichloroethane-d4	87.8		50 - 150				10/24/13 08:17	10/24/13 18:57	1.00
Toluene-d8	101		45.8 - 155				10/24/13 08:17	10/24/13 18:57	1.00
4-bromofluorobenzene	114		41.5 - 162				10/24/13 08:17	10/24/13 18:57	1.00

## Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		67.6		ug/kg dry	☼	10/30/13 08:34	10/30/13 14:28	1.00
PCB-1221	ND		67.6		ug/kg dry	☼	10/30/13 08:34	10/30/13 14:28	1.00
PCB-1232	ND		67.6		ug/kg dry	☼	10/30/13 08:34	10/30/13 14:28	1.00
PCB-1242	ND		67.6		ug/kg dry	☼	10/30/13 08:34	10/30/13 14:28	1.00
PCB-1248	ND		67.6		ug/kg dry	☼	10/30/13 08:34	10/30/13 14:28	1.00
PCB-1254	ND		67.6		ug/kg dry	☼	10/30/13 08:34	10/30/13 14:28	1.00
PCB-1260	ND		67.6		ug/kg dry	☼	10/30/13 08:34	10/30/13 14:28	1.00
PCB-1268	ND		67.6		ug/kg dry	☼	10/30/13 08:34	10/30/13 14:28	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
TCX	71.7		46.2 - 210				10/30/13 08:34	10/30/13 14:28	1.00
Decachlorobiphenyl	91.7		65.6 - 186				10/30/13 08:34	10/30/13 14:28	1.00

## Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Naphthalene</b>	<b>0.243</b>		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
<b>2-Methylnaphthalene</b>	<b>1.99</b>		0.0676		mg/kg dry	☼	10/29/13 07:00	10/30/13 16:55	5.00
<b>1-Methylnaphthalene</b>	<b>1.10</b>		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
Acenaphthylene	ND		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
<b>Acenaphthene</b>	<b>0.751</b>		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
Fluorene	ND		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
<b>Phenanthrene</b>	<b>1.06</b>		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
<b>Anthracene</b>	<b>0.238</b>		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
<b>Fluoranthene</b>	<b>0.0207</b>		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
<b>Pyrene</b>	<b>0.0613</b>		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
Benzo (a) anthracene	ND		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
Chrysene	ND		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
Benzo (b) fluoranthene	ND		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
Benzo (k) fluoranthene	ND		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
Benzo (a) pyrene	ND		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
Dibenzo (a,h) anthracene	ND		0.00811		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00
Benzo (ghi) perylene	ND		0.0135		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:20	1.00

TestAmerica Spokane

# Client Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

**Client Sample ID: SB7D-25'**

**Lab Sample ID: SWJ0162-01**

**Date Collected: 10/22/13 10:00**

**Matrix: Soil**

**Date Received: 10/23/13 10:50**

**Percent Solids: 73.5**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	99.0		53.2 - 137	10/29/13 07:00	10/30/13 13:20	1.00
2-FBP	92.0		63.6 - 123	10/29/13 07:00	10/30/13 13:20	1.00
p-Terphenyl-d14	99.2		65.6 - 167	10/29/13 07:00	10/30/13 13:20	1.00

## Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	90.6		13.9		mg/kg dry	☼	10/25/13 09:26	10/26/13 04:13	1.00
Heavy Oil Range Hydrocarbons	ND		34.8		mg/kg dry	☼	10/25/13 09:26	10/26/13 04:13	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	97.5		50 - 150	10/25/13 09:26	10/26/13 04:13	1.00
n-Triacontane-d62	104		50 - 150	10/25/13 09:26	10/26/13 04:13	1.00

**Client Sample ID: SB7D-27.5**

**Lab Sample ID: SWJ0162-02**

**Date Collected: 10/22/13 10:30**

**Matrix: Other (S)**

**Date Received: 10/23/13 10:50**

**Percent Solids: 97.4**

## Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
2-Methylnaphthalene	0.0777		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
1-Methylnaphthalene	0.0496		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Acenaphthylene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Acenaphthene	0.0477		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Fluorene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Phenanthrene	0.0643		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Anthracene	0.0141		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Fluoranthene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Pyrene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Benzo (a) anthracene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Chrysene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Benzo (b) fluoranthene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Benzo (k) fluoranthene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Benzo (a) pyrene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Indeno (1,2,3-cd) pyrene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Dibenzo (a,h) anthracene	ND		0.00551		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00
Benzo (ghi) perylene	ND		0.00918		mg/kg dry	☼	10/29/13 07:00	10/30/13 13:46	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	100		53.2 - 137	10/29/13 07:00	10/30/13 13:46	1.00
2-FBP	94.0		63.6 - 123	10/29/13 07:00	10/30/13 13:46	1.00
p-Terphenyl-d14	110		65.6 - 167	10/29/13 07:00	10/30/13 13:46	1.00

## Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	25.8		9.20		mg/kg dry	☼	10/25/13 09:26	10/26/13 04:35	1.00
Heavy Oil Range Hydrocarbons	ND		23.0		mg/kg dry	☼	10/25/13 09:26	10/26/13 04:35	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	92.5		50 - 150	10/25/13 09:26	10/26/13 04:35	1.00
n-Triacontane-d62	99.6		50 - 150	10/25/13 09:26	10/26/13 04:35	1.00

TestAmerica Spokane

# Client Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

**Client Sample ID: SB3D-21**

**Date Collected: 10/22/13 13:20**

**Date Received: 10/23/13 10:50**

**Lab Sample ID: SWJ0162-03**

**Matrix: Other (S)**

**Percent Solids: 97.2**

## Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Gasoline Range Hydrocarbons</b>	<b>23.1</b>		7.08		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:17	1.00
Methyl tert-butyl ether	ND		0.00849		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:17	1.00
Benzene	ND		0.00708		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:17	1.00
Ethylbenzene	ND		0.142		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:17	1.00
Toluene	ND		0.142		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:17	1.00
o-Xylene	ND		0.283		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:17	1.00
m,p-Xylene	ND		0.566		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:17	1.00
Naphthalene	ND		0.283		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:17	1.00
Xylenes (total)	ND		2.12		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:17	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	97.1		42.4 - 163				10/24/13 08:17	10/24/13 19:17	1.00
1,2-dichloroethane-d4	86.6		50 - 150				10/24/13 08:17	10/24/13 19:17	1.00
Toluene-d8	102		45.8 - 155				10/24/13 08:17	10/24/13 19:17	1.00
4-bromofluorobenzene	115		41.5 - 162				10/24/13 08:17	10/24/13 19:17	1.00

**Client Sample ID: SB3D-25**

**Date Collected: 10/22/13 13:40**

**Date Received: 10/23/13 10:50**

**Lab Sample ID: SWJ0162-04**

**Matrix: Other (S)**

**Percent Solids: 96.9**

## Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.36		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:37	1.00
Methyl tert-butyl ether	ND		0.00763		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:37	1.00
Benzene	ND		0.00636		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:37	1.00
Ethylbenzene	ND		0.127		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:37	1.00
Toluene	ND		0.127		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:37	1.00
o-Xylene	ND		0.254		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:37	1.00
m,p-Xylene	ND		0.509		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:37	1.00
Naphthalene	ND		0.254		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:37	1.00
Xylenes (total)	ND		1.91		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:37	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	102		42.4 - 163				10/24/13 08:17	10/24/13 19:37	1.00
1,2-dichloroethane-d4	86.0		50 - 150				10/24/13 08:17	10/24/13 19:37	1.00
Toluene-d8	99.3		45.8 - 155				10/24/13 08:17	10/24/13 19:37	1.00
4-bromofluorobenzene	109		41.5 - 162				10/24/13 08:17	10/24/13 19:37	1.00

**Client Sample ID: SB2D-20**

**Date Collected: 10/22/13 16:00**

**Date Received: 10/23/13 10:50**

**Lab Sample ID: SWJ0162-05**

**Matrix: Other (S)**

**Percent Solids: 97.9**

## Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.44		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:56	1.00
Methyl tert-butyl ether	ND		0.00773		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:56	1.00
Benzene	ND		0.00644		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:56	1.00
Ethylbenzene	ND		0.129		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:56	1.00
Toluene	ND		0.129		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:56	1.00
o-Xylene	ND		0.258		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:56	1.00

TestAmerica Spokane

# Client Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

**Client Sample ID: SB2D-20**

**Date Collected: 10/22/13 16:00**

**Date Received: 10/23/13 10:50**

**Lab Sample ID: SWJ0162-05**

**Matrix: Other (S)**

**Percent Solids: 97.9**

## Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		0.516		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:56	1.00
Naphthalene	ND		0.258		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:56	1.00
Xylenes (total)	ND		1.93		mg/kg dry	☼	10/24/13 08:17	10/24/13 19:56	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	101		42.4 - 163				10/24/13 08:17	10/24/13 19:56	1.00
1,2-dichloroethane-d4	85.0		50 - 150				10/24/13 08:17	10/24/13 19:56	1.00
Toluene-d8	102		45.8 - 155				10/24/13 08:17	10/24/13 19:56	1.00
4-bromofluorobenzene	110		41.5 - 162				10/24/13 08:17	10/24/13 19:56	1.00

**Client Sample ID: SB2D-22.5**

**Date Collected: 10/22/13 16:30**

**Date Received: 10/23/13 10:50**

**Lab Sample ID: SWJ0162-06**

**Matrix: Other (S)**

**Percent Solids: 98.7**

## Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.20		mg/kg dry	☼	10/24/13 08:17	10/24/13 20:16	1.00
Methyl tert-butyl ether	ND		0.00744		mg/kg dry	☼	10/24/13 08:17	10/24/13 20:16	1.00
Benzene	ND		0.00620		mg/kg dry	☼	10/24/13 08:17	10/24/13 20:16	1.00
Ethylbenzene	ND		0.124		mg/kg dry	☼	10/24/13 08:17	10/24/13 20:16	1.00
Toluene	ND		0.124		mg/kg dry	☼	10/24/13 08:17	10/24/13 20:16	1.00
o-Xylene	ND		0.248		mg/kg dry	☼	10/24/13 08:17	10/24/13 20:16	1.00
m,p-Xylene	ND		0.496		mg/kg dry	☼	10/24/13 08:17	10/24/13 20:16	1.00
Naphthalene	ND		0.248		mg/kg dry	☼	10/24/13 08:17	10/24/13 20:16	1.00
Xylenes (total)	ND		1.86		mg/kg dry	☼	10/24/13 08:17	10/24/13 20:16	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	97.8		42.4 - 163				10/24/13 08:17	10/24/13 20:16	1.00
1,2-dichloroethane-d4	86.3		50 - 150				10/24/13 08:17	10/24/13 20:16	1.00
Toluene-d8	104		45.8 - 155				10/24/13 08:17	10/24/13 20:16	1.00
4-bromofluorobenzene	109		41.5 - 162				10/24/13 08:17	10/24/13 20:16	1.00

**Client Sample ID: SCW**

**Date Collected: 10/22/13 17:00**

**Date Received: 10/23/13 10:50**

**Lab Sample ID: SWJ0162-07**

**Matrix: Water**

## Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	205	P	90.0		ug/l		10/28/13 09:00	10/28/13 15:52	1.00
Methyl tert-butyl ether	ND	P	0.500		ug/l		10/28/13 09:00	10/28/13 15:52	1.00
Benzene	0.330	P	0.200		ug/l		10/28/13 09:00	10/28/13 15:52	1.00
Toluene	ND	P	0.500		ug/l		10/28/13 09:00	10/28/13 15:52	1.00
Ethylbenzene	2.92	P	0.500		ug/l		10/28/13 09:00	10/28/13 15:52	1.00
m,p-Xylene	8.93	P	0.500		ug/l		10/28/13 09:00	10/28/13 15:52	1.00
o-Xylene	3.74	P	0.500		ug/l		10/28/13 09:00	10/28/13 15:52	1.00
Naphthalene	ND	P	2.00		ug/l		10/28/13 09:00	10/28/13 15:52	1.00
Xylenes (total)	12.7	P	1.50		ug/l		10/28/13 09:00	10/28/13 15:52	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	105	P	71.2 - 143				10/28/13 09:00	10/28/13 15:52	1.00
1,2-dichloroethane-d4	99.3	P	70 - 140				10/28/13 09:00	10/28/13 15:52	1.00

TestAmerica Spokane



# Client Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

**Client Sample ID: SCW**

**Lab Sample ID: SWJ0162-07**

**Date Collected: 10/22/13 17:00**

**Matrix: Water**

**Date Received: 10/23/13 10:50**

## Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8	90.3	P	74.1 - 135	10/28/13 09:00	10/28/13 15:52	1.00
4-bromofluorobenzene	111	P	68.7 - 141	10/28/13 09:00	10/28/13 15:52	1.00

## Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	2.48		0.401		mg/l		11/05/13 06:53	11/05/13 14:55	1.00
Heavy Oil Range Hydrocarbons	1.69		0.642		mg/l		11/05/13 06:53	11/05/13 14:55	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	80.6		50 - 150	11/05/13 06:53	11/05/13 14:55	1.00
n-Triacontane-d62	89.0		50 - 150	11/05/13 06:53	11/05/13 14:55	1.00

TestAmerica Spokane

# QC Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

## Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 13J0165-BLK1

Matrix: Soil

Analysis Batch: 13J0165

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13J0165\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Methyl tert-butyl ether	ND		0.00600		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Benzene	ND		0.00500		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Ethylbenzene	ND		0.100		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Toluene	ND		0.100		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
o-Xylene	ND		0.200		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
m,p-Xylene	ND		0.400		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Naphthalene	ND		0.200		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Hexane	ND		0.100		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Xylenes (total)	ND		1.50		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	102		42.4 - 163	10/24/13 08:17	10/24/13 15:08	1.00
1,2-dichloroethane-d4	88.1		50 - 150	10/24/13 08:17	10/24/13 15:08	1.00
Toluene-d8	101		45.8 - 155	10/24/13 08:17	10/24/13 15:08	1.00
4-bromofluorobenzene	106		41.5 - 162	10/24/13 08:17	10/24/13 15:08	1.00

Lab Sample ID: 13J0165-BS1

Matrix: Soil

Analysis Batch: 13J0165

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0165\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Methyl tert-butyl ether	0.500	0.569		mg/kg wet		114	79 - 127
Benzene	0.500	0.552		mg/kg wet		110	75.9 - 123
Ethylbenzene	0.500	0.538		mg/kg wet		108	80 - 120
Toluene	0.500	0.542		mg/kg wet		108	77.3 - 126
o-Xylene	0.500	0.580		mg/kg wet		116	80 - 120
m,p-Xylene	0.500	0.516		mg/kg wet		103	80 - 120
Naphthalene	0.500	0.604		mg/kg wet		121	58.8 - 130
Hexane	0.500	0.536		mg/kg wet		107	50 - 150
Xylenes (total)	1.00	1.10		mg/kg wet		110	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	102		42.4 - 163
1,2-dichloroethane-d4	92.9		50 - 150
Toluene-d8	100		45.8 - 155
4-bromofluorobenzene	104		41.5 - 162

Lab Sample ID: 13J0165-BS2

Matrix: Soil

Analysis Batch: 13J0165

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0165\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Gasoline Range Hydrocarbons	50.0	54.0		mg/kg wet		108	74.4 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	97.0		42.4 - 163

TestAmerica Spokane

# QC Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

## Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

(Continued)

Lab Sample ID: 13J0165-BS2

Matrix: Soil

Analysis Batch: 13J0165

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0165\_P

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-dichloroethane-d4	87.6		50 - 150
Toluene-d8	103		45.8 - 155
4-bromofluorobenzene	109		41.5 - 162

Lab Sample ID: 13J0180-BLK1

Matrix: Water

Analysis Batch: 13J0180

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13J0180\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		90.0		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
Methyl tert-butyl ether	ND		0.500		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
Benzene	ND		0.200		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
Toluene	ND		0.500		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
Ethylbenzene	ND		0.500		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
m,p-Xylene	ND		0.500		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
o-Xylene	ND		0.500		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
Naphthalene	ND		2.00		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
1,2-Dichloroethane (EDC)	ND		0.500		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
1,2-Dibromoethane	ND		1.00		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
Xylenes (total)	ND		1.50		ug/l		10/28/13 09:00	10/28/13 10:58	1.00
Hexane	ND		1.00		ug/l		10/28/13 09:00	10/28/13 10:58	1.00

	Blank	Blank					Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits						
Dibromofluoromethane	96.7		71.2 - 143				10/28/13 09:00	10/28/13 10:58	1.00
1,2-dichloroethane-d4	91.7		70 - 140				10/28/13 09:00	10/28/13 10:58	1.00
Toluene-d8	102		74.1 - 135				10/28/13 09:00	10/28/13 10:58	1.00
4-bromofluorobenzene	112		68.7 - 141				10/28/13 09:00	10/28/13 10:58	1.00

Lab Sample ID: 13J0180-BS1

Matrix: Water

Analysis Batch: 13J0180

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0180\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	10.0	9.17		ug/l		91.7	80.1 - 128
Benzene	10.0	9.74		ug/l		97.4	84.2 - 122
Toluene	10.0	10.0		ug/l		100	85 - 123
Ethylbenzene	10.0	9.32		ug/l		93.2	83.6 - 111
m,p-Xylene	10.0	9.54		ug/l		95.4	85 - 115
o-Xylene	10.0	9.85		ug/l		98.5	85 - 116
Naphthalene	10.0	8.32		ug/l		83.2	62.8 - 132
1,2-Dichloroethane (EDC)	10.0	9.58		ug/l		95.8	63.9 - 144
1,2-Dibromoethane	10.0	9.97		ug/l		99.7	70 - 130
Xylenes (total)	20.0	19.4		ug/l		97.0	85 - 115
Hexane	10.0	10.2		ug/l		102	70 - 130

TestAmerica Spokane

# QC Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

## Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

(Continued)

Lab Sample ID: 13J0180-BS1

Matrix: Water

Analysis Batch: 13J0180

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0180\_P

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane	97.8		71.2 - 143
1,2-dichloroethane-d4	96.6		70 - 140
Toluene-d8	101		74.1 - 135
4-bromofluorobenzene	110		68.7 - 141

Lab Sample ID: 13J0180-BS2

Matrix: Water

Analysis Batch: 13J0180

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0180\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	1000	1020		ug/l		102	80 - 120
	LCS	LCS					
Surrogate	%Recovery	Qualifier	Limits				
Dibromofluoromethane	95.3		71.2 - 143				
1,2-dichloroethane-d4	93.4		70 - 140				
Toluene-d8	99.9		74.1 - 135				
4-bromofluorobenzene	115		68.7 - 141				

## Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 13J0165-BLK1

Matrix: Soil

Analysis Batch: 13J0165

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13J0165\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00600		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Benzene	ND		0.00500		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Toluene	ND		0.100		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Ethylbenzene	ND		0.100		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
m,p-Xylene	ND		0.400		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
o-Xylene	ND		0.200		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Naphthalene	ND		0.200		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Xylenes (total)	ND		0.600		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
Hexane	ND		0.100		mg/kg wet		10/24/13 08:17	10/24/13 15:08	1.00
	Blank	Blank							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	102		42.4 - 163				10/24/13 08:17	10/24/13 15:08	1.00
1,2-dichloroethane-d4	88.1		50 - 150				10/24/13 08:17	10/24/13 15:08	1.00
Toluene-d8	101		45.8 - 155				10/24/13 08:17	10/24/13 15:08	1.00
4-bromofluorobenzene	106		41.5 - 162				10/24/13 08:17	10/24/13 15:08	1.00

TestAmerica Spokane

# QC Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

## Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 13J0165-BS1

Matrix: Soil

Analysis Batch: 13J0165

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0165\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.500	0.569		mg/kg wet		114	79 - 127
Benzene	0.500	0.552		mg/kg wet		110	75.9 - 123
Toluene	0.500	0.542		mg/kg wet		108	77.3 - 126
Ethylbenzene	0.500	0.538		mg/kg wet		108	80 - 120
m,p-Xylene	0.500	0.516		mg/kg wet		103	80 - 120
o-Xylene	0.500	0.580		mg/kg wet		116	80 - 120
Naphthalene	0.500	0.604		mg/kg wet		121	58.8 - 130
Xylenes (total)	1.00	1.10		mg/kg wet		110	80 - 120
Hexane	0.500	0.536		mg/kg wet		107	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	102		42.4 - 163
1,2-dichloroethane-d4	92.9		50 - 150
Toluene-d8	100		45.8 - 155
4-bromofluorobenzene	104		41.5 - 162

## Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Lab Sample ID: 13J0193-BLK1

Matrix: Soil

Analysis Batch: 13J0193

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13J0193\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50.0		ug/kg wet		10/30/13 08:34	10/30/13 13:39	1.00
PCB-1221	ND		50.0		ug/kg wet		10/30/13 08:34	10/30/13 13:39	1.00
PCB-1232	ND		50.0		ug/kg wet		10/30/13 08:34	10/30/13 13:39	1.00
PCB-1242	ND		50.0		ug/kg wet		10/30/13 08:34	10/30/13 13:39	1.00
PCB-1248	ND		50.0		ug/kg wet		10/30/13 08:34	10/30/13 13:39	1.00
PCB-1254	ND		50.0		ug/kg wet		10/30/13 08:34	10/30/13 13:39	1.00
PCB-1260	ND		50.0		ug/kg wet		10/30/13 08:34	10/30/13 13:39	1.00
PCB-1268	ND		50.0		ug/kg wet		10/30/13 08:34	10/30/13 13:39	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	97.1		46.2 - 210	10/30/13 08:34	10/30/13 13:39	1.00
Decachlorobiphenyl	91.1		65.6 - 186	10/30/13 08:34	10/30/13 13:39	1.00

Lab Sample ID: 13J0193-BS1

Matrix: Soil

Analysis Batch: 13J0193

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0193\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	167	187		ug/kg wet		112	44.4 - 180
PCB-1260	167	194		ug/kg wet		117	60.3 - 169

Surrogate	LCS %Recovery	LCS Qualifier	Limits
TCX	115		46.2 - 210
Decachlorobiphenyl	122		65.6 - 186

TestAmerica Spokane

# QC Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

## Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Lab Sample ID: 13J0193-BSD1

Matrix: Soil

Analysis Batch: 13J0193

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 13J0193\_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	167	194		ug/kg wet		117	44.4 - 180	3.88	25
PCB-1260	167	192		ug/kg wet		115	60.3 - 169	0.975	25
Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits						
TCX	120		46.2 - 210						
Decachlorobiphenyl	117		65.6 - 186						

Lab Sample ID: 13J0193-MS1

Matrix: Soil

Analysis Batch: 13J0193

Client Sample ID: SB7D-25'

Prep Type: Total

Prep Batch: 13J0193\_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	ND		341	337		ug/kg dry	☼	98.9	50.6 - 145		
PCB-1260	ND		341	300		ug/kg dry	☼	88.0	57.6 - 120		
Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits								
TCX	79.5		46.2 - 210								
Decachlorobiphenyl	88.5		65.6 - 186								

Lab Sample ID: 13J0193-MSD1

Matrix: Soil

Analysis Batch: 13J0193

Client Sample ID: SB7D-25'

Prep Type: Total

Prep Batch: 13J0193\_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	ND		234	244		ug/kg dry	☼	104	50.6 - 145	31.9	40
PCB-1260	ND		234	206	R2	ug/kg dry	☼	88.0	57.6 - 120	36.9	27.4
Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits								
TCX	89.7		46.2 - 210								
Decachlorobiphenyl	104		65.6 - 186								

## Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 13J0184-BLK1

Matrix: Soil

Analysis Batch: 13J0184

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13J0184\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
2-Methylnaphthalene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
1-Methylnaphthalene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Acenaphthylene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Acenaphthene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Fluorene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Phenanthrene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Anthracene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Fluoranthene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00

TestAmerica Spokane

# QC Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

## Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 13J0184-BLK1

Matrix: Soil

Analysis Batch: 13J0184

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13J0184\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Benzo (a) anthracene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Chrysene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Benzo (b) fluoranthene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Benzo (k) fluoranthene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Benzo (a) pyrene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Dibenzo (a,h) anthracene	ND		0.00600		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00
Benzo (ghi) perylene	ND		0.0100		mg/kg wet		10/29/13 07:00	10/30/13 07:47	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	95.8		53.2 - 137	10/29/13 07:00	10/30/13 07:47	1.00
2-FBP	97.2		63.6 - 123	10/29/13 07:00	10/30/13 07:47	1.00
p-Terphenyl-d14	114		65.6 - 167	10/29/13 07:00	10/30/13 07:47	1.00

Lab Sample ID: 13J0184-BS1

Matrix: Soil

Analysis Batch: 13J0184

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0184\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Naphthalene	0.133	0.129		mg/kg wet		97.0	62.7 - 120
Fluorene	0.133	0.139		mg/kg wet		104	67.9 - 124
Chrysene	0.133	0.139		mg/kg wet		104	68.2 - 132
Indeno (1,2,3-cd) pyrene	0.133	0.149		mg/kg wet		112	52.6 - 149

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	94.6		53.2 - 137
2-FBP	103		63.6 - 123
p-Terphenyl-d14	106		65.6 - 167

Lab Sample ID: 13J0184-BSD1

Matrix: Soil

Analysis Batch: 13J0184

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 13J0184\_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Naphthalene	0.133	0.131		mg/kg wet		98.0	62.7 - 120	1.03	35
Fluorene	0.133	0.135		mg/kg wet		101	67.9 - 124	2.93	35
Chrysene	0.133	0.132		mg/kg wet		99.0	68.2 - 132	5.41	35
Indeno (1,2,3-cd) pyrene	0.133	0.147		mg/kg wet		110	52.6 - 149	0.901	35

Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits
Nitrobenzene-d5	97.4		53.2 - 137
2-FBP	103		63.6 - 123
p-Terphenyl-d14	106		65.6 - 167

TestAmerica Spokane



# QC Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

## Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 13J0184-MS1

Matrix: Soil

Analysis Batch: 13J0184

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 13J0184\_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.00748		0.247	0.233		mg/kg dry	☼	91.5	30 - 120
Fluorene	ND		0.247	0.249		mg/kg dry	☼	101	30 - 140
Chrysene	0.0318		0.247	0.263		mg/kg dry	☼	93.6	30 - 133
Indeno (1,2,3-cd) pyrene	0.0234		0.247	0.315		mg/kg dry	☼	118	30 - 140

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
Nitrobenzene-d5	93.6		53.2 - 137
2-FBP	91.8		63.6 - 123
p-Terphenyl-d14	95.8		65.6 - 167

Lab Sample ID: 13J0184-MSD1

Matrix: Soil

Analysis Batch: 13J0184

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 13J0184\_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Naphthalene	0.00748		0.231	0.213		mg/kg dry	☼	88.8	30 - 120	9.32	35
Fluorene	ND		0.231	0.229		mg/kg dry	☼	99.0	30 - 140	8.64	35
Chrysene	0.0318		0.231	0.296		mg/kg dry	☼	114	30 - 133	11.7	35
Indeno (1,2,3-cd) pyrene	0.0234		0.231	0.306		mg/kg dry	☼	122	30 - 140	2.79	35

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
Nitrobenzene-d5	97.2		53.2 - 137
2-FBP	90.6		63.6 - 123
p-Terphenyl-d14	104		65.6 - 167

## Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 13J0176-BLK1

Matrix: Soil

Analysis Batch: 13J0176

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13J0176\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.0		mg/kg wet		10/25/13 09:26	10/25/13 20:10	1.00
Heavy Oil Range Hydrocarbons	ND		25.0		mg/kg wet		10/25/13 09:26	10/25/13 20:10	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	98.0		50 - 150	10/25/13 09:26	10/25/13 20:10	1.00
n-Triacontane-d62	111		50 - 150	10/25/13 09:26	10/25/13 20:10	1.00

Lab Sample ID: 13J0176-BS1

Matrix: Soil

Analysis Batch: 13J0176

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0176\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Hydrocarbons	83.3	63.8		mg/kg wet		76.6	73 - 133

TestAmerica Spokane

# QC Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

## Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx (Continued)

Lab Sample ID: 13J0176-BS1

Matrix: Soil

Analysis Batch: 13J0176

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13J0176\_P

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-FBP	98.1		50 - 150
n-Triacontane-d62	106		50 - 150

Lab Sample ID: 13J0176-MS1

Matrix: Soil

Analysis Batch: 13J0176

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 13J0176\_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
Diesel Range Hydrocarbons	30.4		121	113	M8	mg/kg dry	☼	68.1	70.1 - 139
Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits						
2-FBP	105		50 - 150						
n-Triacontane-d62	111		50 - 150						

Lab Sample ID: 13J0176-DUP1

Matrix: Soil

Analysis Batch: 13J0176

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 13J0176\_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Diesel Range Hydrocarbons	30.4		16.0	R2	mg/kg dry	☼	62.0	40
Heavy Oil Range Hydrocarbons	129		93.6		mg/kg dry	☼	31.9	40
Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits					
2-FBP	101		50 - 150					
n-Triacontane-d62	109		50 - 150					

Lab Sample ID: 13K0013-BLK1

Matrix: Water

Analysis Batch: 13K0013

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13K0013\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.250		mg/l		11/05/13 06:53	11/05/13 14:09	1.00
Heavy Oil Range Hydrocarbons	ND		0.400		mg/l		11/05/13 06:53	11/05/13 14:09	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-FBP	84.4		50 - 150				11/05/13 06:53	11/05/13 14:09	1.00
n-Triacontane-d62	93.7		50 - 150				11/05/13 06:53	11/05/13 14:09	1.00

Lab Sample ID: 13K0013-BS1

Matrix: Water

Analysis Batch: 13K0013

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13K0013\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diesel Range Hydrocarbons	2.50	1.83		mg/l		73.1	54.5 - 136
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2-FBP	85.0		50 - 150				

TestAmerica Spokane

## QC Sample Results

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

### Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx (Continued)

Lab Sample ID: 13K0013-BS1

Matrix: Water

Analysis Batch: 13K0013

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13K0013\_P

Surrogate	LCS		Limits
	%Recovery	Qualifier	
n-Triacontane-d62	92.0		50 - 150

# Lab Chronicle

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

**Client Sample ID: SB7D-25'**

**Date Collected: 10/22/13 10:00**

**Date Received: 10/23/13 10:50**

**Lab Sample ID: SWJ0162-01**

**Matrix: Soil**

**Percent Solids: 73.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.01	13J0165_P	10/24/13 08:17	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13J0165	10/24/13 18:57	CBW	TAL SPK
Total	Prep	EPA 3550B		0.994	13J0193_P	10/30/13 08:34	MS	TAL SPK
Total	Analysis	EPA 8082A		1.00	13J0193	10/30/13 14:28	MS	TAL SPK
Total	Prep	EPA 3550B		0.993	13J0184_P	10/29/13 07:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	13J0184	10/30/13 13:20	MRS	TAL SPK
Total	Analysis	EPA 8270D		5.00	13J0184	10/30/13 16:55	MRS	TAL SPK
Total	Prep	EPA 3550B		1.02	13J0176_P	10/25/13 09:26	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13J0176	10/26/13 04:13	MRS	TAL SPK
Total	Prep	Wet Chem		1.00	13J0185_P	10/25/13 15:45	MS	TAL SPK
Total	Analysis	TA SOP		1.00	13J0185	10/29/13 08:06	MS	TAL SPK

**Client Sample ID: SB7D-27.5**

**Date Collected: 10/22/13 10:30**

**Date Received: 10/23/13 10:50**

**Lab Sample ID: SWJ0162-02**

**Matrix: Other (S)**

**Percent Solids: 97.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3550B		0.894	13J0184_P	10/29/13 07:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	13J0184	10/30/13 13:46	MRS	TAL SPK
Total	Prep	EPA 3550B		0.896	13J0176_P	10/25/13 09:26	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13J0176	10/26/13 04:35	MRS	TAL SPK
Total	Prep	Wet Chem		1.00	13J0185_P	10/25/13 15:45	MS	TAL SPK
Total	Analysis	TA SOP		1.00	13J0185	10/29/13 08:06	MS	TAL SPK

**Client Sample ID: SB3D-21**

**Date Collected: 10/22/13 13:20**

**Date Received: 10/23/13 10:50**

**Lab Sample ID: SWJ0162-03**

**Matrix: Other (S)**

**Percent Solids: 97.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.35	13J0165_P	10/24/13 08:17	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13J0165	10/24/13 19:17	CBW	TAL SPK
Total	Prep	Wet Chem		1.00	13K0014_P	11/04/13 16:10	MS	TAL SPK
Total	Analysis	TA SOP		1.00	13K0014	11/05/13 09:05	MS	TAL SPK

**Client Sample ID: SB3D-25**

**Date Collected: 10/22/13 13:40**

**Date Received: 10/23/13 10:50**

**Lab Sample ID: SWJ0162-04**

**Matrix: Other (S)**

**Percent Solids: 96.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.20	13J0165_P	10/24/13 08:17	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13J0165	10/24/13 19:37	CBW	TAL SPK
Total	Prep	Wet Chem		1.00	13K0014_P	11/04/13 16:10	MS	TAL SPK
Total	Analysis	TA SOP		1.00	13K0014	11/05/13 09:05	MS	TAL SPK

TestAmerica Spokane

## Lab Chronicle

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

### Client Sample ID: SB2D-20

Date Collected: 10/22/13 16:00

Date Received: 10/23/13 10:50

### Lab Sample ID: SWJ0162-05

Matrix: Other (S)

Percent Solids: 97.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.24	13J0165_P	10/24/13 08:17	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13J0165	10/24/13 19:56	CBW	TAL SPK
Total	Prep	Wet Chem		1.00	13K0014_P	11/04/13 16:10	MS	TAL SPK
Total	Analysis	TA SOP		1.00	13K0014	11/05/13 09:05	MS	TAL SPK

### Client Sample ID: SB2D-22.5

Date Collected: 10/22/13 16:30

Date Received: 10/23/13 10:50

### Lab Sample ID: SWJ0162-06

Matrix: Other (S)

Percent Solids: 98.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.21	13J0165_P	10/24/13 08:17	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13J0165	10/24/13 20:16	CBW	TAL SPK
Total	Prep	Wet Chem		1.00	13K0014_P	11/04/13 16:10	MS	TAL SPK
Total	Analysis	TA SOP		1.00	13K0014	11/05/13 09:05	MS	TAL SPK

### Client Sample ID: SCW

Date Collected: 10/22/13 17:00

Date Received: 10/23/13 10:50

### Lab Sample ID: SWJ0162-07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13J0180_P	10/28/13 09:00	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13J0180	10/28/13 15:52	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		1.60	13K0013_P	11/05/13 06:53	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13K0013	11/05/13 14:55	MRS	TAL SPK

#### Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

## Certification Summary

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

### Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C569	01-06-14

## Method Summary

Client: Schwyn Environmental Services, LLC  
Project/Site: [none]

TestAmerica Job ID: SWJ0162

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
EPA 8260C	NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C		TAL SPK
EPA 8082A	Polychlorinated Biphenyls by EPA Method 8082		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

### Protocol References:

### Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200



5755 8<sup>th</sup> Street East, Tacoma, WA 98424-1317  
11922 E. First Ave., Spokane WA 99206-5302  
9405 SW Nimbus Ave., Beaverton, OR 97008-7145  
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047  
509-924-9200 FAX 924-9290  
503-906-9200 FAX 906-9210  
907-563-9200 FAX 563-9210

## CHAIN OF CUSTODY REPORT

Work Order #: SW2016

TURNAROUND REQUEST									
in Business Days *									
Organic & Inorganic Analyses									
Petroleum Hydrocarbon Analyses									
SPEC									
STD									
OTHER Specify:									
* Turnaround Requests less than standard may incur Rush Charges.									
TA WO ID									
LOCATION/ COMMENTS									
# OF CONT.									
MATRIX (W, S, O)									
1	Soil	3							
2	Rock	1							
3	Rock	3							
4	Rock	3							
5	Rock	3							
6	Rock	3							
7	Water								
8									
9									
10									

INVOICE TO: Schwyn									
PRESERVATIVE									
REQUESTED ANALYSES									
TPH-D									
PAH									
BTEXNM									
TPH-DX									
SAMPLING DATE/TIME									
CLIENT SAMPLE IDENTIFICATION									
1	SB70-25'	10/22/13	10:00	X	X	X	X	X	X
2	SB70-27.5'	10:30		X	X	X	X	X	X
3	SB30-21	1320		X	X	X	X	X	X
4	SB30-25	1340		X	X	X	X	X	X
5	SB20-20	1600		X	X	X	X	X	X
6	SB20-22.5	1630		X	X	X	X	X	X
7	SCW	10/22/13	1700	X	X	X	X	X	X
8									
9									
10									

PROJECT NAME: Hammer Quick Stop									
PROJECT NUMBER:									
SAMPLED BY: Craig Schwyn									
RELEASED BY: Craig Schwyn									
PRINT NAME: Schwyn-Enviro									
DATE: 10/23/13									
TIME: 11:00									
FIRM: Schwyn-Enviro									
RECEIVED BY: [Signature]									
PRINT NAME: [Signature]									
DATE: 10/23/13									
TIME: 11:00									
FIRM: Schwyn-Enviro									
RECEIVED BY: [Signature]									
PRINT NAME: [Signature]									
DATE: 10/23/13									
TIME: 11:00									
FIRM: Schwyn-Enviro									

TURNAROUND REQUEST									
in Business Days *									
Organic & Inorganic Analyses									
Petroleum Hydrocarbon Analyses									
SPEC									
STD									
OTHER Specify:									
* Turnaround Requests less than standard may incur Rush Charges.									
TA WO ID									
LOCATION/ COMMENTS									
# OF CONT.									
MATRIX (W, S, O)									
1	Soil	3							
2	Rock	1							
3	Rock	3							
4	Rock	3							
5	Rock	3							
6	Rock	3							
7	Water								
8									
9									
10									

INVOICE TO: Schwyn									
PRESERVATIVE									
REQUESTED ANALYSES									
TPH-D									
PAH									
BTEXNM									
TPH-DX									
SAMPLING DATE/TIME									
CLIENT SAMPLE IDENTIFICATION									
1	SB70-25'	10/22/13	10:00	X	X	X	X	X	X
2	SB70-27.5'	10:30		X	X	X	X	X	X
3	SB30-21	1320		X	X	X	X	X	X
4	SB30-25	1340		X	X	X	X	X	X
5	SB20-20	1600		X	X	X	X	X	X
6	SB20-22.5	1630		X	X	X	X	X	X
7	SCW	10/22/13	1700	X	X	X	X	X	X
8									
9					</				

**TestAmerica Spokane  
Sample Receipt Form**

<b>Work Order #</b> <u>SW50162</u>	<b>Client</b> <u>Schwyn Enviro</u>	<b>Project</b> <u>Plummer</u>		
<b>Date/Time Received:</b> <u>10-23-13 1050</u> <b>By:</b> <u>RD</u>				
<b>Samples Delivered By:</b> <input type="checkbox"/> Shipping Service <input type="checkbox"/> Courier <input checked="" type="checkbox"/> Client <input type="checkbox"/> Other: _____				
<b>List Air Bill Number(s) or Attach a photocopy of the Air Bill:</b>				
<b>Receipt Phase</b>	<b>Yes</b>	<b>No</b>	<b>NA</b>	<b>Comments</b>
Were samples received in a cooler:	<u>X</u>			
Custody Seals are present and intact:			<u>X</u>	
Are CoC documents present:	<u>X</u>			
Necessary signatures:	<u>X</u>			
<b>Thermal Preservation Type:</b> <input type="checkbox"/> Blue Ice <input type="checkbox"/> Gel Ice <input checked="" type="checkbox"/> Real Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None <input type="checkbox"/> Other: _____				
<b>Temperature:</b> <u>6.6</u> °C Thermometer (Circle one Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2) (acceptance criteria 0-6)				
<b>Temperature out of range:</b> <input type="checkbox"/> Not enough ice <input type="checkbox"/> Ice melted <input type="checkbox"/> w/in 4hrs of collection <input type="checkbox"/> NA <input type="checkbox"/> Other: _____				
<b>Log-in Phase</b>	<b>Yes</b>	<b>No</b>	<b>NA</b>	<b>Comments</b>
<b>Date/Time:</b> <u>10-23-13 1120</u> <b>By:</b> <u>CS</u>				
Are sample labels affixed and completed for each container	<u>X</u>			
Samples containers were received intact:	<u>X</u>			
Do sample IDs match the CoC	<u>X</u>			
Appropriate sample containers were received for tests requested	<u>X</u>			
Are sample volumes adequate for tests requested	<u>X</u>			
Appropriate preservatives were used for the tests requested	<u>X</u>			
pH of inorganic samples checked and is within method specification	<u>X</u>			
Are VOC samples free of bubbles >6mm (1/4" diameter)			<u>X</u>	
Are dissolved parameters field filtered			<u>X</u>	
Do any samples need to be filtered or preserved by the lab			<u>X</u>	
Does this project require quick turnaround analysis		<u>X</u>		
Are there any short hold time tests (see chart below)		<u>X</u>		
Are any samples within 2 days of or past expiration		<u>X</u>		
Was the CoC scanned	<u>X</u>			
Were there Non-conformance issues at login		<u>X</u>		
If yes, was a CAR generated # _____			<u>X</u>	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012